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REMARKS/ARGUMENTS

Applicant has amended claim 23 in order to correct an antecedent issue by replacing the term "the antenna" with the term "the antennas".

35 U.S.C 102 Claim Rejections

In paragraph 6 of the detailed action, the Examiner has rejected claims 23 and 24 under 35 U.S.C. 102 as being anticipated by U.S. Patent No. 6,148,219 to Engelbrecht *et al.* (Engelbrecht *et al.*).

Before setting forth a discussion of the prior art applied in the detailed action, it is respectfully submitted that controlling case law has frequently addressed rejections under 35 U.S.C. 102. "For a prior art reference to anticipate in terms of 35 U.S.C. Section 102, every element of the claimed invention must be identically shown in a single reference." *Diversitech Corp. v. Century Step, Inc.*, 850 F. 2d 675, 677, 7 U.S.P.Q. 2d 1315, 1317 (Federal Circuit 1988). "The disclosed elements must be arranged as in the claim under review." See *Lindman Machine Fabric v. American Hoist and Derrick Company*, 730 F. 2d 1452, 1458, 221 U.S.P.Q. 481, 485 (Federal Circuit 1984). "If any claim, element, or step is absent from the reference that is being relied upon, there is no anticipation." *Closter Speedsteel AB v. Crucible, Inc.*, 793 F. 2d 1565, 230 U.S.P.Q. 81 (Federal Circuit 1986). The following analysis of the present rejections is respectfully offered with guidance from the foregoing controlling case law decisions.

To begin, Applicant submits that key features of claims 23 and 24 are not taught or fairly suggested by Engelbrecht *et al.*, specifically Engelbrecht *et al.* does not teach a wireless device comprising *inter alia* "a system for automatically determining status of the antennas to differentiate between at least two status criteria", wherein "the antennas" refers to a first antenna and a second antenna of the wireless device.

Engelbrecht *et al.* teaches a "[b]ase station and system modification to a digital cellular telephone system that measures location of a mobile station from its normal transmissions, and can forward the measured position to that station or some other authorized caller or service on the communication network. Range measurement is enabled without

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modification of mobile station equipment because of the synchronization between received pulse epochs and transmitted ones that are required for normal operation and digital telephony. Range measurement is made at a **base station** currently in contact with **the mobile station** by measuring the time interval from the start of **its own transmitted pulse epoch** to the start of a **pulse epoch subsequently received from the mobile station**, then dividing that time interval by twice the velocity of radio waves. Direction from **the base station** is determined, in a preferred embodiment, by use of a planar phase steered antenna array synchronized to **pulse sequences from the mobile station.**" (see Abstract of Engelbrecht *et al.*, emphasis added) From the foregoing, it is clear that Engelbrecht *et al.* describes a **base station** that is operable to determine the location of a **mobile station** by measuring the direction and time delay associated with a signal generated by the mobile station.

In contrast, the present invention relates to wireless devices and methods by which a wireless device may self-determine a status, such as a "indoor" vs. "outdoor".

In view of the foregoing, Applicant submits that it is clear that the teachings of Engelbrecht *et al.* are completely different than the teachings of the present invention. Specifically, in order for the location of a mobile station to be determined according to the teachings of Engelbrecht *et al.*, synchronized communication between at least two wireless devices, i.e. a base station and the mobile station is required. Such is not the case with the invention of the subject application.

With regard to claim 23, the Examiner has pointed to Figures 2, 7 and 8; column 2, lines 45-59; and column 5, lines 5-22 of Engelbrecht *et al.* in support of the rejection of claim 23; arguing that these portions of Engelbrecht *et al.* disclose a wireless device comprising: a first antenna and a second antenna. Applicant respectfully submits that these portions of Engelbrecht *et al.* disclose a base station comprising: a first antenna and a second antenna. The Examiner has further appointed to column 6, lines 31-65; and column 8, line 43-column 9, line 34 of Engelbrecht *et al.* in support of the rejection of claim 23; arguing that these portions of Engelbrecht *et al.* disclose that the wireless device comprising: a first and a second antenna further comprises a system for automatically determining status of the antenna[s] to differentiate between at least two status criteria. Applicant respectfully submits that these

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portions of Engelbrecht *et al.*, and the reference as a whole, merely describes a system and a method by which a base station may determine the location of a mobile station, which clearly does not teach or fairly suggest that the wireless device comprising the first antenna and the second antenna, further comprises a system for automatically determining status of the antennas of the wireless device to differentiate between at least two status criteria of the wireless device, as recited in claim 23.

In view of the fact that the cited reference fails to teach a key limitation of the claims, and also fails to identically show every element of the claimed invention, as is required to find that a prior art reference is anticipated under 35 U.S.C. Section 102 given the rulings in *Closter Speedsteel AB v. Crucible, Inc.* and *Diversitech Corp. v. Century Steps, Inc.* respectively, the Examiner is respectfully requested to reconsider and withdraw the 35 U.S.C. 102 rejection of claim 23 and claim 24 which depends from claim 23 and distinguishes over Engelbrecht *et al.* for at least the same reasons.

35 U.S.C 103 Claim Rejections

In paragraph 9 of the detailed action, the Examiner has rejected claims 26-30 under 35 U.S.C. 103(a) as being unpatentable over Engelbrecht *et al.* in view of U.S. Patent No. 6,463,290 B1 to Stilp *et al.* (Stilp *et al.*). Applicant notes that on the first line of paragraph 9 of the detailed action the Examiner states that claims 26-30 are rejected under 35 U.S.C. 103(a). and yet in the third line of paragraph 9 of the detailed action the Examiner refers to claims 25-30. In light of the fact that page 1 of the detailed action indicates that all of the claims have been rejected, Applicant assumes that the first line of paragraph 9 of the detailed action contains a typographical error and the Examiner intended to state that claims 25-30 are rejected under 35 U.S.C. 103(a).

Claims 25-30 depend from claim 23 and therefore contain all of the limitations of claim 23. Applicant respectfully submits that a first criterion required to establish a case of *prima facie* obviousness has not been satisfied. That is, the prior art references do not teach all of the claimed features.

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As outlined above in response to the 35 U.S.C. 102 rejections, Engelbrecht *et al.* fails to teach a key limitation of claim 23; therefore claim 23 distinguishes over Engelbrecht *et al.* and all claims that depend from claim 23 distinguish over Engelbrecht *et al.* for at least the same reasons. Stilp *et al.* also fails to teach the key limitation of claim 23 that is not taught by Engelbrecht *et al.*, namely "a system for automatically determining status of the antennas to differentiate between at least two status criteria". In light of the fact that Engelbrecht *et al.* and Stilp *et al.*, either alone or in combination would not allow one skilled in the art to arrive at the subject matter of claim 23, claims 25-30, which depend from claim 23, distinguish over Engelbrecht *et al.* and Stilp *et al.* for at least the same reasons.

In addition, Stilp *et al.* disclose a wireless location system that locates a wireless transmitter (mobile unit) "while the latter is using a modified transmission sequence comprising a message sent from the wireless transmitter using transmission parameters different from the normal transmission parameters broadcast on the forward control channel by the base stations in the associated wireless communication systems" (See Abstract of Stilp *et al.*). What this means is that the wireless location system (WLS) of Stilp *et al.* measures a signal comprising a modified transmission sequence generated by a remote mobile unit's wireless transmitter in order to determine the location of the wireless transmitter and hence the mobile unit. The Examiner has pointed to the receiver module 10-2 of Stilp *et al.* in support of the rejections of claims 25-30 under 35 U.S.C. 103(a). The Examiner has argued that the receiver module 10-2 contains "circuits to generate test frequencies and calibration signals, as well as test ports where measurements can be made by technicians during installation or troubleshooting", which circuits the Examiner has equated to the "test signal generator" recited in claim 27. Applicant submits that the receiver 10-2 and its associated circuitry are included as part of the wireless location system and is not part of the mobile units or wireless transmitters that are located by the wireless location system, which is completely contrary to the present invention, which relates to self-determining a status of a wireless device, such as a indoor vs. outdoor status of the wireless device, rather than relying upon communication between a wireless device and a wireless location system in order to determine a location of the wireless device. Therefore, Applicant submits that claims 25-30 recite further key features that distinguish over the teachings of Engelbrecht *et al.* and Stilp *et al.* Furthermore, with regard to claim 25 and 26, both Engelbrecht

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et al. and Stilp *et al.* fail to teach or suggest that the at least two status criteria correspond to different radio system operation parameters and that the radio system operation parameters correspond, respectively, to an "indoor" and "outdoor" setting.

In view of the foregoing, Applicant respectfully requests that the Examiner reconsider and withdraw the 35 U.S.C. 103(a) rejections of claims 25-30, as the first criteria for the *prima facie* case of obviousness has not been satisfied.

In paragraph 2 of the detailed action, the Examiner has rejected claims 1-8, 15-17 and 19-21 under 35 U.S.C. 103(a) as being unpatentable over Engelbrecht *et al.* in view of U.S. Patent No. 6,952,574 B2 to Tealdi *et al.* (Tealdi *et al.*). Applicant respectfully disagrees and submits that the combination of Engelbrecht *et al.* and Tealdi *et al.* is insufficient to allow one skilled in the art to arrive at the present invention.

As described above, the teachings of Engelbrecht *et al.* are very different than the teachings of the present invention. Specifically, Engelbrecht *et al.* disclose determining the location of a mobile station by measuring signals transmitted from the mobile station at a base station, whereas the present invention relates to the self-determination of a indoor vs. outdoor status of a wireless device, i.e. a second wireless device (the base station of Engelbrecht *et al.*) is not required. Applicant submits that the teachings of Tealdi *et al.* are similarly directed to methods and systems of locating mobile stations using the base stations of a wireless communication networks, i.e. multiple base stations are used to measure signals received from a mobile station for triangulation and location of the mobile station (see Figure 1 of Tealdi *et al.*). Determining the geographical location of a device does not equate to determining indoor vs. outdoor status, and in fact, indoor vs. outdoor cannot be determined from location alone. The reference has no discussion of indoor vs. outdoor status. Neither of the references contain any motivation for determining indoor vs. outdoor status.

Moreover, the references are directed to solving a very different problem than the present invention. Engelbrecht *et al.* is directed to determining a geographical location of a wireless device involved in a 911 call, so that authorities know where to go in order to respond to the call. Tealdi *et al.* is directed to determining geographical locations of wireless devices carried by fire

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fighters so that the actions of the fire fighters can be co-ordinated. The present invention is directed to a wireless device that is operable to determine its status, such as "indoor" vs. "outdoor", and adjust its operational parameters based on its status.

With regard to claim 1, Applicant submits that in light of the fact that the teachings of Engelbrecht *et al.* and Tealdi *et al.* are completely different than the teachings of the present invention and fail to teach or fairly suggest, individually and in combination, a wireless device comprising a first antenna and a second antenna and a system for determining whether or not the wireless device is either inside a building or outside a building, as recited in claim 1, claim 1 distinguishes over the teachings of Engelbrecht *et al.* and Tealdi *et al.* and dependent claims 2-14, which depend from claim 1, distinguish for at least the same reasons.

Furthermore, in the rejection of claims 1-8 under 35 U.S.C. 103(a), the Examiner has referred to portions and aspects of Tealdi *et al.* which are irrelevant or contrary to the present invention. For example, the Examiner has identified the knob or switch 502 of the wireless device 102 shown in Figure 5 of Tealdi *et al.*, which when turned to a pre-determined position, forces the wireless communication device into an automated tracking mode. It appears that the Examiner may be equating this knob or switch 502 with the parameter adjuster recited in claim 4 of the instant application. However, Applicant points out that the parameter adjuster recited in claim 4 changes the operation of the wireless device based on whether or not the wireless device is either inside a building or outside a building and cannot be equated to a simple switch activated by the user of the wireless device.

With regard to claim 15, Applicant submits that claim 15 recites further key limitations that distinguish over the teachings of Engelbrecht *et al.* and Tealdi *et al.*, namely:

- i) transmitting a test signal from the first antenna;
- ii) receiving direct and/or reflected component of the test signal through the second antenna; and

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iii) processing the direct and/or reflected component received through the second antenna to determine at least one prescribed radio signal propagation characteristic.

The Examiner has pointed to Figure 2; column 2, lines 45-49; column 5, lines 5-22; column 6, lines 31-65; and column 8, lines 43- column 9, line 34 of Engelbrecht *et al.* as having discloses features i)-iii) above. However, these portions of Engelbrecht *et al.* and Engelbrecht *et al.* as a whole merely disclose a base station having a first antenna and a second antenna, which transmits a first signal via the first antenna to a mobile station instructing the mobile station to respond by producing a response signal, which the base station then receives via the first antenna and the second antenna (see the forward channel and reverse channel of Figure 1 of Engelbrecht *et al.*). From the foregoing, it is clear that Engelbrecht *et al.* does not disclose **transmitting a test signal from the first antenna and receiving direct and/or reflected components of the test signal through the second antenna**, as recited in claim 15.

With regard to claims 19-21, Applicant submits that these claims recite similar distinguishing features as claims 1 and 15 and distinguish over the teachings of Engelbrecht *et al.* and Tealdi *et al.* for at least the same reasons as claims 1 and 15.

In view of the forgoing, Applicant submits that independent claims 1, 15 and 19-21 recite key limitations which Engelbrecht *et al.* and Tealdi *et al.* fail to teach or fairly suggest and therefore independent claims 1, 15 and 19-21 are patentable over Engelbrecht *et al.* and Tealdi *et al.* Applicant further submits that dependent claims 2-14 and 16-18, which depend from independent claims 1 and 15 respectively, distinguish over Engelbrecht *et al.* and Tealdi *et al.* for at least the same reasons.

In paragraph 3 of the detailed action, the Examiner has objected to claims 9-14 and 18 under 35 U.S.C. 103(a) as being unpatentable over Engelbrecht *et al.* in view of Tealdi *et al.* and further in view of Stilp *et al.* Applicant respectfully disagrees.

As discussed above in relation to the Examiner's rejection of claims 1-8, 15-17 and 19-21 under 35 U.S.C. 103(a), Engelbrecht *et al.* and Tealdi *et al.* fail to teach or fairly suggest key

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limitations of independent claims 1 and 15, which claims 9-14 and 18 depend from respectively. Furthermore, as described above in relation to the Examiner's rejection of claims 25-30 under 35 U.S.C. 103(a), Stilp *et al.* fails to teach the test signal generator and the associated transmitting of a test signal and the receiving of direct and/or reflected components of the test signal and associated processing. Therefore, Applicant submits that dependent claims 9-14 and dependent claim 18, which dependent from independent claims 1 and 15, respectively distinguish over the teachings of Engelbrecht *et al.*, Tealdi *et al.* and Stilp *et al.* for at least the same reasons as independent claims 1 and 15 and also recite additional features which are not taught by these references. For example, claim 9 recites a test signal generator operable to transmit a test signal from the first antenna into the environment surrounding the wireless device and a received test signal analyzer operable to analyse direct and/or reflected components of the test signal from the environment surrounding the wireless device through the second antenna.

In paragraph 5 of the detailed action, the Examiner has rejected claims 22 and 31-33 under 35 U.S.C. 103(a) as being unpatentable over Engelbrecht *et al.* in view of Tealdi *et al.* and Stilp *et al.* Applicant respectfully disagrees.

Independent claims 22, 31 and 33, recite at least the same distinguishing features as independent claim 15 and distinguish over the teachings of Engelbrecht *et al.*, Tealdi *et al.* and Stilp *et al.* for at least the same reasons as claim 15. Dependent claim 32, which depends from claim 31, distinguishes over the teachings of Engelbrecht *et al.*, Tealdi *et al.* and Stilp *et al.* for at least the same reasons as claim 31.


In view of the foregoing, Applicant respectfully requests that Examiner reconsider and withdraw the rejections of claims 1-22 and 31-33 under 35 U.S.C. 103(a).

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In view of the foregoing, early favorable consideration of this application is earnestly solicited. In the event that that the Examiner has concerns regarding the present response, the Examiner is encouraged to contact the undersigned at the telephone listed below.

Respectfully submitted,

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Encl.